



July 1, 2016

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Subject: Comments on Second Draft NPDES Permit ID0020842
City of Sandpoint Wastewater Treatment Facility

Gentlemen:

We first want to express sincere appreciation once again for the time that you and your staffs have taken to review this Second Draft Permit with us. Significant new staff and leadership at the City makes your extra effort go a long way toward a better understanding of all the issues, as we all work to maintain and improve water quality. As we stated in our previous Draft Permit comments, the City of Sandpoint cherishes its surrounding water quality. Residents, business owners and visitors realize that excellent water quality is important to the City's economy and way of life. Ensuring that the City's wastewater treatment effluent is of consistently high quality is recognized as important in all City decisions and operations.

It is equally as important that the City dedicate its limited resources in a fair and effective manner. We believe that portions of the Second Draft Permit require clarification and/or modification to be consistent with those dual goals, while still meeting all requirements under the Clean Water Act.

Our comments are organized in the following sections:

Timeline/Compliance Schedule Requirements

Our first concern is the timeline proposed for the necessary planning, funding, design, construction, and start-up of the improvements to meet new permit requirements. The current

Facility Plan is ten years old and must be updated to reflect improvements made within our system since it was approved. The Facility Plan Update must also address the significantly more stringent requirements for phosphorus, ammonia, and mercury proposed under this Second Draft Permit. We have received approval for Idaho Department of Environmental Quality (DEQ) matching funds to update the Facility Plan and will begin that two-year process in 2016. The Facility Plan will include significant public involvement to determine whether the existing treatment plant site can accommodate the preferred improvement alternatives. Imbedded within the decision for plant relocation is the level of desire and participation of other regional entities in a common treatment plant.

Once the Facility Plan Update is approved by DEQ, the difficult and extensive process for funding the treatment plant improvements must be achieved through voter approval or judicial confirmation. Funding approval often takes a year or more to achieve and may delay the improvement design process, since improvement alternatives are often dictated by available funding for those improvements. The improvement design process should be provided at least two years in order to allow for potential pilot testing of physical and biological process modifications. This is especially true at the existing plant site, where space constraints will significantly limit the available technologies that can be considered for ammonia and phosphorus reduction.

Bidding and construction of the complex electrical, mechanical, and biological wastewater improvements being contemplated to meet new permit limits will require at least two years to complete. If the selected alternative from the Facility Plan involves relocating the existing treatment plant, the construction timeline should be extended by at least two years. The additional time is needed to account for the miles of pressure pipelines that must be constructed to connect the existing common influent location to the proposed location near Baldy Mountain Road and Great Northern Road, as well as return the reclaimed water to the river outfall. Once construction is complete at either location, the biological startup and optimization sequences will still require at least a year to be confidently established for permit compliance. The bottom line is that compliance with the Second Draft Permit limits would require at least eight years at the existing treatment plant site, and ten years if the Facility Plan Update process recommends relocating the treatment facility to the new site.

Interim milestones and progress reports may be needed to assure DEQ, U.S. Environmental Protection Agency (EPA), and the public that these efforts are being made to achieve final compliance as soon as practicable. A proposed Compliance Schedule Table is attached to this letter to more easily demonstrate the timelines necessary for each treatment plant location.

Facility Information – Treatment Plant Description

Now that the correct design flow for the existing facility has been established at 5.0 mgd, it is also vitally important to update the Fact Sheet to accurately describe the treatment process. The description under Section II should be similar to the description in the fact sheet accompanying the January 5, 2002, permit. The following text is similar to the 2002 fact sheet, reflects recent improvement at the treatment plant, and should be included in the Fact Sheet:

The following is a description of the Sandpoint wastewater treatment plant (WWTP) process (flows are reported as maximum instantaneous). Influent wastewater enters the headworks, which consist of a screen, then flows to an aerated grit basin. Following the grit basin, flows greater than 9.8 mgd can be diverted to the storm water clarifier, followed by chlorination in the chlorine contact basin prior to discharge. Flows less than 9.8 mgd pass through two primary clarifiers. Following primary clarification, flows greater than 5.0 mgd are diverted through a detention tank to the chlorine contact basin prior to discharge. Flows less than 5.0 mgd continue through secondary treatment. Secondary treatment consists of two parallel aeration basins with fine bubble aeration, followed by two parallel secondary clarifiers, the chlorine contact basin, and discharge to the Pend Oreille River via a 36-inch diameter outfall and diffuser. Flows diverted to the storm water clarifier and the detention tank are combined with effluent from secondary treatment prior to chlorination and discharge through outfall 001. Primary solids are anaerobically digested. Secondary solids are thickened via a rotating drum screen and anaerobically digested with the primary solids. Digested biosolids are land applied. Biogas is used to heat the digester and generate electricity.

Phosphorus Limit

During our workshop/meeting on June 10, 2016, EPA communicated to the City that the proposed summer phosphorus limit was based on the current estimated summer phosphorus load being discharged by Sandpoint and that the load changed from the prior permit due to a “summertime” analysis. This method is consistent with Sandpoint’s stated goal of limiting our phosphorus discharge to current values and Idaho’s anti-degradation rules. However, the methodology is not well documented in the permit or fact sheet; therefore, we request that the basis for the phosphorus discharge (current load) be firmly established in the permit and that analyses undertaken by DEQ and EPA (mixing zone, CORMIX, CE-QUAL-W2, Ecoregion II) were used to confirm that the permitted load meets water quality standards. Our goal is to document that current loads were used to establish effluent limits, beneficial uses are being met, water quality goals are being met, and future analysis should not be needed to justify the load when the permit is renewed.

Ammonia Limit

The proposed ammonia limit in the Second Draft Permit was a surprise to the City, given the limited data collected. The field study to measure river direction and velocity seemed to be the primary evidence that triggered an ammonia limit. The staff report hinted at the limited applicability of the effort, yet the effort was heavily relied upon in the Draft Permit. Two points of concern needing to be addressed are:

1. The field study is not adequate to quantify the system sufficiently. The agencies will require the City to spend a great deal of money to meet permit limits triggered by the field study; therefore, a more rigorous effort should be undertaken to adequately characterize the range of conditions in the River.
2. If there is a northeast velocity vector near the outfall, it is unlikely that 100% of the effluent flows that direction. The potential dilution of the tortuous flow should be considered.

We propose the ammonia limit be postponed through the facility planning phase while additional data is obtained by the City; specifically, temperature and pH data around the outfall area both upstream and downstream, and ammonia data around the outfall (upstream, downstream and nearshore), so toxicity (winter and summer) can be estimated. Effluent flow and ammonia concentration data will be collected when the field sampling is done, so potential correlations might be identified. We would plan for a few sampling events on days similar to DEQ's field study (gusty East wind and boat traffic) to capture a "worst case" scenario.

We will have this data available before any significant facilities are designed/constructed, so we can meet with DEQ and EPA to estimate any potential ammonia limit that may be expressed in the next permit (including seasonal options) and plan the appropriate facilities, or EPA can write the permit in a way to account for this additional data.

The City would like the EPA to consider a seasonal ammonia limit if toxicity issues during the colder seasons are not evident upon analysis.

Mixing Zone

Mixing zones for non-toxic compounds are not required under the Clean Water Act. It seems Idaho law is written in such a way to require mixing zones for all discharge constituents rather than allowing 100% of the flow to mix with non-toxic compounds. It will be our responsibility to work at the State level to verify that the methodology is consistent with the intent with which it was passed into law.

Mercury

The January 28, 2015, letter comments to EPA remain valid today: Fish tissue sampling is supposed to be conducted by responsible states and tribes at least every five years under EPA (and DEQ) guidance. It is not reasonable or necessary to shift this responsibility to Sandpoint based on existing data.

1. Mercury monitoring requirements in the Pend Oreille River are not reasonable because they are proposed based on upstream fish tissue methyl-mercury concentrations in Lake Pend Oreille. DEQ acknowledges that methylation of mercury in the lake environment is very different than in the river environment where Sandpoint discharges. Those upstream sources and processes are not the responsibility of, nor can they be reduced or eliminated by, Sandpoint discharge or monitoring proposed in this Second Draft Permit. In fact, Pend Oreille River fish tissue may very well meet state and federal requirements. This is directly supported by the downstream fish tissue sampling in the river, where only a single sample out of 12 exceeded DEQ and EPA standards of 0.3 mg/kg and, at 0.492 mg/kg; it was within Washington's standards. We strenuously reassert that the fish tissue sampling requirements should be removed because they are not consistent with either the treatment plant monitoring data that has been occurring under the current permit or the downstream fish tissue sampling performed by the State of Washington, EPA, and the Kalispel Tribe.
2. The method detection limit required in Sandpoint's current permit was higher than desirable for DEQ's and EPA's current concerns, because there was no indication of a mercury concern

at the time. Although Sandpoint detected mercury twice out of 66 samples, both detections occurred within a week of each other, which indicates a likelihood of sampling or laboratory error or a temporary excursion from the influent. Although both reported values are within the proposed permit limits today, they do not provide an adequate representation of actual mercury discharge potential from the Sandpoint WWTP. Therefore, the first step proposed in the Second Draft Permit is appropriate for Sandpoint to collect monthly effluent data using the lower detection limit (proposed almost 1,000 times lower than the current permit). This additional data will allow EPA to recalculate whether Sandpoint has a reasonable potential to exceed the water quality concentration at the edge of the mixing zone based upon reported laboratory values. At the same time, the proposed permit requires the City to develop and implement a Mercury Minimization Plan (MMP). The MMP will educate sewer system users about the sources of mercury within their homes and businesses, along with the dangers of disposing of mercury down the drain. It will also provide information for proper disposal locations. The MMP and improved sampling methodology is reasonable and will provide the agencies and the public reasonable assurance that Sandpoint is protective of receiving water quality for mercury.

3. The proposed permit requirements are a costly burden for Sandpoint. In addition, the fish tissue sampling likely cannot be undertaken without highly specialized consulting expertise and/or agency personnel allowed to obtain fish for sampling. For instance, the City of Boise has employed the U.S. Geological Survey (USGS) for sampling and fish tissue analysis and received 40% cooperative funding for their efforts. Boise and the surrounding communities obviously have significantly more extensive community resources (almost an order of magnitude larger) and discharge into a river that is almost an order of magnitude smaller. Similarly, PCB sampling for fish in the Spokane River has not been forced onto the Idaho or Washington dischargers. The sampling is conducted by agency personnel consistent with DEQ and EPA existing guidance for such sampling.

In summary, Sandpoint should not be burdened with the State and Federal fish sampling programs based on upstream fish tissue concerns when downstream fish tissue concentration do not exceed standards. Under the proposed permit, Sandpoint will be sampling at a frequency and laboratory minimum value that will provide the agencies sufficient data to more accurately develop mercury limits to protect Pend Oreille River water quality and beneficial uses. In addition, Sandpoint will be reducing the potential for mercury contamination by educating its citizens and providing resources for proper disposal of mercury-containing products like fluorescent light bulbs.

PCB's

Polychlorinated biphenyl concentrations in the Pend Oreille River system are largely unknown. However, the Ponderay Newsprint Company's paper mill downstream from Sandpoint was required to obtain river water quality and effluent data for their National Pollutant Discharge Elimination System (NPDES) permit (WDOE, 2012, Fact Sheet for NPDES Permit WA-0045628). The two river sample results were below the detection limits of 50 pg/L and indicate that the river meets both Idaho and Washington water quality standards. Therefore, Sandpoint should not be required to perform monitoring for a water body that apparently meets water quality standards.

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River Sampling

River sampling required as part of this permit should be adjusted to reflect the fact that the river may be unpredictably inaccessible due to ice during the months of December, January, and February. In addition, at more than a mile wide and with the nearest year-round boat launch about 10 miles away, obtaining river samples in low/fluctuating water periods from November through March is expensive, time consuming, and/or hazardous for treatment plant owners and operators. It would be safer and more reliable to provide Sandpoint with flexibility to collect the required number of samples over several years, while avoiding dangerous and very difficult river conditions for collecting those samples.

Summary

The City of Sandpoint's commitment to excellent water quality is strong, and the Pend Oreille River water quality remains excellent. Keeping our water quality is of utmost importance, utilizing effective and practical approaches within the means of Idaho's citizens.

Thank you for carefully considering our comments, which, we believe, will achieve the requirements of the Clean Water Act and continue to protect the Pend Oreille River from degradation to its beneficial uses.

We look forward to a permit that will both protect our high quality water resources, while obligating Sandpoint's limited resources effectively and responsibly. That approach will result in a permit that is acceptable to all.

Sincerely,

A handwritten signature in black ink, appearing to read "Shelby Rognstad". The signature is fluid and cursive, with the first name "Shelby" being more prominent and the last name "Rognstad" following in a similar style.

Shelby Rognstad
Mayor

cc: Ryan Luttmann, Sandpoint Public Works Director
Tom Heron (IDEQ)
June Berquist (IDEQ)
Brian Nickel (USEPA)
Brett Converse, J-U-B ENGINEERS

ATTACHMENT (Compliance Schedule Activities)

Table 1 - Compliance Schedule Activities

Time After Permit Issuance	Compliance Activities and Budget Requirement	WWTP Location
End of Year 1	Provide written notification of development and implementation of the following within 180 days of permit issuance: Quality Assurance Plan (QAP), Operations and Maintenance (O&M) Plan, Emergency Response and Public Notification Plan, and Mercury Minimization Plan (MMP). Submit summary of results of increased sampling frequency and lower detection limit results for effluent total phosphorus, ammonia, PCB, TCDD (dioxin), and total mercury plus PCB and TCDD in influent. ¹ Report results of “summer and winter” sampling around the outfall with a comparison to the assumed ammonia impact conditions that are currently in the Second Draft Permit. Report progress of Facility Plan Update and MMP implementation. Prepare and submit to EPA a Local Limits Evaluation (LLE) for Pretreatment Program requirements. The estimated additional annual budget requirement for these compliance activities is \$150,000 (\$30,000 for laboratory analyses and \$120,000 for consulting engineers and scientists).	Existing and New
End of Year 2	Submit Facility Plan Update for DEQ approval, including public participation and recommended alternative relative to WWTP relocation, improvement funding strategies, and rate/fee impacts. Submit final report with results of “summer and winter” sampling for ammonia impacts around the outfall and a comparison to the assumed conditions in the Second Draft Permit. Submit all annual information required at end of Year 1. The estimated additional annual budget requirement for these compliance activities is \$110,000 (\$30,000 for laboratory analyses and \$80,000 for consulting engineers and scientists).	Existing and New
End of Year 3	Summarize results for securing funding of approved Facility Plan’s selected alternative(s), which may include: grant and loan submittals and results; public outreach, meetings, and hearings to authorize rate and fee increases; soliciting and retaining bond counsel; coordination with County and bond election results; petition and results of Judicial Confirmation proceedings; and resulting Ordinances to authorize debt financing of proposed improvements. Submit all annual information required at end of Year 1. The estimated additional annual budget requirement for these compliance activities is \$70,000 (\$20,000 for laboratory analyses and \$50,000 for consulting engineers and scientists).	Existing and New
End of Year 4	Report progress of design for selected improvement alternative(s), including relocation and staging options for	Existing and New

	new site. Submit completed pilot testing done for phosphorus and ammonia reduction at existing site and/or potential new site processes. Prepare NPDES/IPDES permit application submittal. Submit all annual information required at end of Year 1 plus any river sampling for five-year compliance requirement. The estimated additional annual budget requirement for these compliance activities is \$70,000 (\$30,000 for laboratory analyses and \$40,000 for consulting engineers and scientists).	
End of Year 5	Submit design of selected improvement alternative(s). Submit and respond to NPDES/IPDES permit application questions and comment period. Submit all annual information required at end of Year 1, plus river sampling required for five-year compliance. Implement existing site phosphorus reduction strategies to meet final permit limits. The estimated additional annual budget requirement for these compliance activities is \$70,000 (\$30,000 for laboratory analyses and \$40,000 for consulting engineers and scientists).	Existing and New
End of Year 6	Report progress of bidding and construction for selected improvement alternative(s). Submit all annual information that may be required under a permit renewal process. The estimated additional budget requirement for compliance activities beyond Year 5 are harder to predict but it is unlikely that the costs will decrease in future permit cycles.	Existing and New
End of Year 7	Report progress for construction completion and startup of selected improvement alternative(s) for ammonia reduction to meet final permit limits. Submit all annual information that may be required under a permit renewal process.	Existing
End of Year 7	Report progress for construction of selected improvement alternative(s) for relocating existing plant to new site (collection, transmission, and treatment). Submit all annual information that may be required under a permit renewal process.	New
End of Year 8	Biological processes fully functional to meet final permit limit compliance.	Existing
End of Year 8	Report progress for construction completion and startup of new collection, transmission, and treatment facilities at the new site. Submit all annual information that may be required under a permit renewal process.	New
End of Year 9	Troubleshooting and optimization of new treatment and transmission facilities.	New
End of Year 10	Final permit limit compliance.	New

1. Does not include river water or fish sampling. Permit requirement must allow three months for ultra-low level results for mercury, PCB, and TCDD to be reported from the specialized laboratories capable of performing the work plus collation of the report by City staff.